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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/386,965	08/31/1999	JUN-JIN KONG	Q55591	1967

7590 06/12/2003  
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EXAMINER

PHU, PHUONG M

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/386,965

Applicant(s)

KONG ET AL.

Examiner

Phuong Phu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 November 2002.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-11,13-25 and 27-39 is/are rejected.
- 7) ☒ Claim(s) 4,6,12,26 and 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8-10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 7-11, 13-25 and 27-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Butler et al (5,566,206).

As per claims 1, 3, 10 and 11, see figures 2 and 4, and col. 5, line 42 to col. 6, line 32 and col. 7, line 35 to col. 10, line 21, Butler et al discloses a method and associated system (figure 2) comprising:

step/means (48, 50, 52, 54, 76, 78, 80, 82, 84, 86, 88, 90, 100, 102, 104, 106) for decoding a received data at variable data rates (full rate, half rate,  $\frac{1}{4}$  rate and  $\frac{1}{8}$  rates) and detecting quality information (symbol error rates) of the decoded data at the respective data rates; and

step/means (56) for estimating the rate of the received data based on the quality information of the decoded data at the respective data rates.

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As per claim 2, Butler et al discloses that the decoding step/means is performed using an inverse function (Viterbi decoding) (see figure 2) of a generating function (convolutionally encoding) used for encoding (see col. 4, lines 21-23).

As per claim 5, 8, 9, 13, 16, 20, 27, 30 and 34, see figures 2 and 4, and col. 5, line 42 to col. 6, line 32 and col. 7, line 35 to col. 10, line 21, Butler et al discloses a method and associated system (figure 2) comprising:

step/means (48, 76), comprising first decoder (84) and first encoder (76), for decoding a received data at a first rate and re-encoding the result, to output a first quality indication;

step/means (84, 100), comprising first comparator (84) and first counter (100), for comparing the received data with the first quality indication, and counting the number of errors resulting from the comparison to output an error metric for the first data rate;

step/means (34, 50, 78), comprising second decoder (50) and second encoder (78), for decoding the received data at a second rate and re-encoding the result, to output a second quality indication;

step/means (86, 102), comprising second comparator (86) and second counter (102), for comparing the received data with the second quality indication, and counting the number of errors resulting from the comparison to output an error metric for the second data rate;

step/means (36, 52, 80), comprising third decoder (52) and third encoder (80), for decoding the received data at a third rate and re-encoding the result, to output a third quality indication;

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step/means (88, 104), comprising third comparator (88) and third counter (104), for comparing the received data with the third quality indication, and counting the number of errors resulting from the comparison to output an error metric for the third data rate;

step/means (38, 54, 82), comprising forth decoder (54) and forth encoder (82), for decoding the received data at a forth rate and re-encoding the result, to output a forth quality indication;

step/means (90, 106), comprising forth comparator (90) and forth counter (106), for comparing the received data with the forth quality indication, and counting the number of errors resulting from the comparison to output an error metric for the forth data rate; and

step/means (56) for deciding the rate of the received data by determining which of data received from said first, second, third and forth counter has the least symbol rate, and .

Claim 7 is rejected with similar reasons set forth for claim 2.

As per claims 14, 15, 17-19, 22-25, 28, 29, 31, 32, 33 and 36-39, Butler et al discloses a first processing unit (34), comprising a summer, preceding said second decoder; a second processing unit (36), comprising a summer, preceding said third decoder; and a third processing unit (38), comprising a summer, preceding said forth decoder.

Claims 21 and 35 are rejected with similar reason set forth for claim 2.

***Allowable Subject Matter***

4. Claims 4, 6, 12, 26 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***

5. The applicant is hereby notified that reference "Communication of a Foreign Office Action" cited under section "OTHER DOCUMENTS" of the IDS filed on 5/23/00 is not considered as a prior art.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 703-308-0158. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 703-305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Phuong Phu  
Primary Examiner  
Art Unit 2631

*Phuong Phu*  
Phuong Phu  
May 12, 2003

**PHOUNG PHU  
PRIMARY EXAMINER**